

Listing of Claims:

1 Claim 1 (currently amended) : An information providing
2 apparatus for acquiring contents data representing a high
3 quality still image from a service providing apparatus capable
4 of storing the contents data and of transmitting the contents
5 data in response to a request from a remote user terminal, and
6 for providing the contents data ~~in a direct format or in a~~
7 ~~converted format~~ to the remote user terminal, said information
8 providing comprising:

9 reproducing means for reproducing the contents data;
10 picture data relaying means for relaying still picture
11 data obtained from the contents data reproduced by
12 the reproducing means;
13 moving picture coding means for producing compressed
14 moving picture data having a high image quality from
15 the still picture data obtained from said picture
16 data relaying means, said producing being performed
17 by way of a stepwise image quality complementary
18 type coding system for complementing an image
19 quality in a stepwise manner, and for transmitting
20 the compressed moving picture data to the user
21 terminal to display a still display picture; and
22 control means for determining an area of the still
23 picture data coded into the compressed moving
24 picture data in response to a user selection of a
25 portion of the still display picture made from the
26 remote user terminal, and for notifying the selected
27 area to the moving picture coding means.

1 Claim 2 (previously presented) : An information providing
2 apparatus as claimed in claim 1, wherein

3 said control means is capable of producing a control
4 signal used to change the reproducing state of the
5 reproducing means by receiving a manipulation of the
6 user terminal, and is capable of transmitting the
7 control signal to the reproducing means; and wherein
8 the moving picture coding means produces compressed
9 moving picture data from said still picture data,
10 the content of which is sequentially changed by
11 changing a setting condition of a coding process
12 operation.

1 Claim 3 (previously presented): An information
2 providing apparatus as claimed in claim 1, wherein the moving
3 picture coding means also produces audio data having a
4 designated data format from audio data contained in the
5 contents data, and also produces multiplexed AV data by
6 multiplexing the compressed moving data with the audio data,
7 and transmits the multiplexed AV data to the user terminal.

1 Claim 4 (previously presented): An information
2 providing apparatus for providing data to a remotely located
3 user terminal in response to a request, comprising:
4 storing means for storing contents data including still
5 picture data;
6 reproducing means for reproducing the contents data;
7 picture data relaying means for relaying the still
8 picture data originated from the contents data
9 reproduced by the reproducing means;
10 moving picture coding means for producing compressed
11 moving picture data having a high image quality from
12 the still picture image data by way of a stepwise
13 image quality complementary type coding system for
14 complementing an image quality in a stepwise manner,
15 and for transmitting the compressed moving picture

16 data to the remotely located user terminal for
17 displaying a still display image; and
18 control means for determining an area of still picture
19 data coded into the compressed moving picture data
20 in response to a user selection of a portion of the
21 still display image made from the remote user
22 terminal, and for notifying the selected area to the
23 moving picture coding means.

1 Claim 5 (previously presented): An information providing
2 apparatus as claimed in claim 4, wherein
3 said control means is also for producing a control signal
4 used to change the reproducing state of the
5 reproducing means by receiving a manipulation of the
6 user terminal, and is further for transmitting the
7 control signal to the reproducing means; and wherein
8 the moving picture coding means produces compressed
9 moving picture data from the still picture data, the
10 content of which is sequentially changed by changing
11 a setting condition of coding process operation.

1 Claim 6 (previously presented): An information providing
2 apparatus as claimed in claim 4, wherein the moving picture
3 coding means also produces audio data having a designated data
4 format from audio data contained in the contents data, and
5 also produces multiplexed AV data by multiplexing the
6 compressed moving picture data with the audio data, and also
7 transmits the multiplexed AV data to the user terminal.

1 Claim 7 (previously presented): An information providing
2 system for acquiring content data from a service providing
3 system and for providing a communication service to a remotely
4 located mobile terminal, wherein the content data represents a
5 high quality still image, said information providing system

6 comprising:

7 moving picture coding means for producing compressed
8 moving picture data from the content data using a
9 stepwise image quality complementary coding system;
10 and
11 transmitting means for transmitting the compressed moving
12 picture data to the mobile terminal, wherein
13 the mobile terminal displays a still display image
14 representing the high quality still image from the
15 compressed moving picture data, such that image
16 processing of the content data is primarily
17 conducted by the information providing system to
18 thereby reduce a processing load and/or a memory
19 requirement on the mobile terminal.

1 Claim 8 (previously presented): The system of claim 7,
2 wherein the mobile terminal displays the display image in
3 progressively more detail over some period of time.

1 Claim 9 (previously presented): The system of claim 7,
2 wherein the mobile terminal is a mobile terminal capable of
3 displaying compressed moving picture images.

4 Claim 10 (previously presented): The system of claim 9,
5 wherein the mobile terminal is a PDA or a portable telephone.

1 Claim 11 (previously presented): The system of claim 7,
2 wherein the mobile terminal is a PDA or a portable telephone.

1 Claim 12 (previously presented): The system of claim 7,
2 further comprising control means for determining an area of a
3 portion of the display image, wherein the portion is chosen by
4 a user manipulation at the mobile terminal, and wherein the
5 control means provides the determined area to the moving

6 picture coding means.

1 Claim 13 (currently amended) : An information providing
2 system for acquiring content data from a service providing
3 system and for providing a communication service to a remotely
4 located mobile terminal capable of displaying compressed
5 moving picture data and connected to a communication network,
6 wherein the content data represents a high quality still
7 image, said information providing system comprising:

8 moving picture coding means for producing compressed
9 moving picture data from the content data using a
10 stepwise image quality complementary coding system;
11 and

12 transmitting means for transmitting the compressed moving
13 picture data to the mobile terminal via the
14 communication network capable of displaying
15 compressed moving picture data, such that image
16 processing is conducted at the information providing
17 system to thereby reduce a processing load and/or a
18 memory requirement on the mobile terminal, and
19 wherein

20 the mobile terminal displays a still display image
21 representing the high quality still image from the
22 compressed moving picture data.

1 Claim 14 (previously presented) : The system of claim 13,
2 wherein the mobile terminal is a PDA or a portable telephone.

1 Claim 15 (previously presented) : The system of claim 13,
2 wherein the mobile terminal displays the still display image
3 in progressively more detail over some period of time.

1 Claim 16 (previously presented) : The system of claim 13,
2 further including control means for determining an area of a
3 portion of the display image, wherein the portion is chosen by
4 a user manipulation at the mobile terminal, and wherein the
5 control means provides the determined area to the moving
6 picture coding means, which then produces new compressed
7 moving picture data from the content data using the stepwise
8 image quality complementary coding system, wherein the new
9 compressed moving picture data corresponds to the chosen
10 portion of the display image for displaying the chosen portion
11 on the mobile device in a larger fashion.

1 Claim 17 (currently amended) : A system comprising:
2 a mobile terminal including telephone capability for
3 connecting to a telephone network and capable of
4 displaying compressed moving picture data;
5 a service providing system for providing content data
6 representing a high quality still image as a
7 service; and
8 an information providing system for acquiring the content
9 data from the service providing system and for
10 providing a communication service to the mobile
11 terminal, said information providing system
12 including:
13 moving picture coding means for producing compressed
14 moving picture data from the content data for
15 providing compressed moving picture data to the
16 mobile terminal for display on the mobile
17 terminal,

18 transmitting means for transmitting the compressed
19 moving picture data to the mobile terminal,
20 wherein the mobile terminal displays a still
21 display image representing the high quality
22 still image from the compressed moving picture
23 data,
24 control means for determining an area of the still
25 picture data coded into the compressed moving
26 picture data in response to a user selection of
27 a portion of the still display image from the
28 user terminal, and for notifying the selected
29 area to the moving picture coding means,
30 wherein
31 the moving picture coding means then produces new
32 compressed moving picture data from the content
33 data corresponding to the user selected portion
34 of the display image for displaying the
35 selected portion on the mobile terminal in a
36 larger fashion as a zoomed still image; wherein
37 the information providing system operates such that a
38 primary portion of image processing of the content
39 data is conducted at the information providing
40 system to thereby reduce a processing load and/or a
41 memory requirement on the mobile terminal.